

Response to Comments
Site Specific Work Plan Addendum for Preliminary Assessment/Site Inspection
Site UXO-06 Former Fortified Beach Assault Area
MCB Camp Lejeune, North Carolina

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Introduction

The purpose of this document is to address comments to the Draft Site Specific Work Plan Addendum for Preliminary Assessment/Site Inspection Site UXO-06 Former Fortified Beach Assault Area for Marine Corps Base (MCB) Camp Lejeune, North Carolina and to provide documentation of the changes to the field sampling plan. The United States Environmental Protection Agency (USEPA) and the North Carolina Department of Environment and Natural Resources (NCDENR) provided the comments listed. Comments were solicited from Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic Division; however they indicated they had no comments on the subject report. Responses to comments are provided in bold type.

Changes to the Field Sampling Plan (Section 3.6 of the Work Plan)

A site reconnaissance was conducted during site survey activities, on February 5, 2008, to evaluate if the multi-increment sampling approach could be conducted at all of the proposed Decision Units in the Draft Work Plan. Based on the observation during the site reconnaissance, seven Decision Units were removed because they were either in developed portions of Site UXO-06 or the Decision Unit was too vegetated to complete the multi-increment sampling approach. The surface soil at Site UXO-06 where Decision Units were removed will be characterized for munition constituents and metals by collecting 13 additional surface soil samples using the TR-02-01 sampling approach. The revisions to the surface soil sampling approach can be seen on the revised Figure 3-1 (attached).

North Carolina Department of Environment and Natural Resources Comments (dated January 31, 2008)

Comments

1. Section 1.4, second paragraph- Is the soil removed from the borrow pit tested for MC or HTW before it leaves the site?

It was reported that the top 4 feet of soil was removed prior to excavating soil from the borrow pit for use as fill. An environmental investigation of the area adjacent to the borrow pit will be investigated before the pit is expanded.

2. Section 2.2.6, third paragraph- please explain why the NC SSLs and NC 2L standards are not use in the Human Risk Screening.

Section 2.2.6 of the Work Plan has been modified to add the NC SSLs and the NC 2L standards to the screening criteria for soil and groundwater respectively.

3. Section 3.1, second paragraph, eighth bullet - Again, why 10%.

Knowledge of the specific target zone or impact area is not known. Therefore, an approach is being taken to provide a broad overview of site conditions. The purpose of the DGM investigation is to support base construction activities. The intent of performing DGM over 10% of the area is to determine a risk level to establish whether a removal is merited and what level of UXO support is required for construction. In addition, 10% DGM coverage is an accepted munitions response industry standard.

4. Section 3.2.4, first paragraph- Does this 23 acres include the DGM area and the Decision Units?

Some portions of the decision units were cleared because they overlapped DGM transects but the purpose of the vegetation removal was only to provide access for the DGM.

5. Section 3.2.5, third bullet- Restoration of the site will be verified by whom?

Restoration of the site will be verified by the CH2M HILL Field Team Leader.

Section 3.2.5 was modified to read:

"Restoration of the site to an appropriate level (e.g., repair deep ruts) will be verified by the CH2M HILL field team leader"

6. Section 3.6.1, second paragraph- Figure 3-1 shows two of the decision units as 30 X 60 Meters.

None of the proposed decision units shown on Figure 3-1 are 30 x 60 meters.

Based on an evaluation of the site during survey activities, it was determined that 7 of the proposed Decision Units were located in areas that are too heavily vegetated or are developed. The number of Decision Units has been reduced to 10 and replaced with TR-02-1 samples. A new Figure 3-1 showing proposed sampling locations is attached. The Work Plan will be revised to reflect the new sampling locations.

7. Section 3.6.1, Surface TR-02-1 Sampling- Please list Method 8330B here for soil and sediment as a possible method.

Samples will be analyzed by Method 8330 and will not be analyzed by Method 8330B. References to Method 8330B will be removed from the Work Plan. Currently, there are no laboratories certified by the Navy to analyze explosives

residues using Method 8330B. The Navy has expressed concerns over some of the sample preparation requirements in this method and is currently evaluating the appropriateness of this method for future investigations.

8. Figures 3-1 & 3-2- How were these sampling points/Decision Area locations determined? Please discuss in this document in detail.

Sample locations are distributed across the site (as conditions permit) due to a lack of available historical information indicating specific areas within the site with a high potential for HTW or MC contamination to be present. If geophysical anomalies indicative of potential subsurface MEC are identified during the DGM surveys, the sample locations may be altered to be within the vicinity of these signatures.

The following statement was added to Section 3.6.1 of the Work Plan:

"The archival records search (Appendix A) did not identify specific areas within Site UXO-06 where HTW or MC contamination may be present; therefore sample locations will be distributed across the entire site (as conditions permit). If geophysical anomalies are identified from the DGM survey that may represent subsurface MEC, the sample locations may be altered to be within the vicinity of these signatures."

United States Environmental Protection Agency Comments (dated January 31, 2008)

Comments

1. The document states that three soil composite samples will be collected from 17 decision units. It further states that the decision unit sizes vary from 30m x 30m to 100m x 100m. What is the justification for the varying decision unit sizes? This should be explained in the document.

The multi-increment sampling method cannot be conducted if developed areas or heavily vegetation lie within a decision unit boundary. The decision units were sized based on the constraints of the sampling method while covering as much of the site as possible.

Based on an evaluation of the site during site survey activities, it was determined that 7 of the proposed Decision Units were located in areas that are too heavily vegetated or are developed. The number of Decision Units has been reduced to 10 and replaced with 13 TR02-1 samples. A new Figure 3-1 showing proposed sampling locations is attached. The Work Plan will be revised to reflect the new sampling locations.

The following statement was added to Section 3.6.1 of the Work Plan:

"Decision Unit were sized based on the constraints of the sampling method while covering as much of Site UXO-06 as possible, Decision Unit sizes vary from 50 m x 50 m to 100 m x 100 m."